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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/662,982	09/15/2003	Anibal Diego Ramirez	1505-0160	2259

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EXAMINER	
TSAI, CAROL S W	

ART UNIT	PAPER NUMBER
2857	

DATE MAILED: 04/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

CM

Office Action Summary	Application No.	Applicant(s)	
	10/662,982	RAMIREZ, ANIBAL DIEGO	
	Examiner	Art Unit	
	Carol S. Tsai	2857	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 March 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-3, 8-12, 14-17, 19, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over U. S. Patent No. 4,918,995 to Pearman et al. in view of U. S. Patent No. 6,874,691 to Hildebrand et al.

With respect to claims 1-3 11, 12, 16, and 17, Pearman et al. disclose a metering arrangement, comprising: a meter housing configured to be securedly supported proximal to a facility receiving utility commodities (see col. 1, lines 46-52); a source of energy signals representative of electrical energy received by the facility (see Figs. 6 and 7; col. 6, lines 40-52; and col. 7, lines 26-40); a source of gas flow signals representative of gas flow through a gas conduit to the facility (see col. 3, lines 15-40); a source of temperature signals representative of a temperature corresponding to the gas conduit (see Fig. 4 and col. 4, line 67 to col. 5, line 32); a processing circuit (electronic circuits 16 shown on Fig. 6) disposed within the meter housing, the processing circuit operably connected to the source of energy signals to receive energy signals therefrom, the processing circuit operably connected to the source of gas flow signals to received

gas flow signals therefrom, the processing circuit operably connected to the source of temperature signals to receive temperature signals therefrom, the processing circuit operable to generate gas consumption information based on the received gas flow signals and the received temperature signals (see col. 4, line 67 to col. 5, line 32; col. 10, line 7 to col. 11, line 27; and col. 11, line 45 to col. 13, line 10).

Pearman et al. do not disclose generate electrical energy consumption metering information from the energy signals.

Hildebrand et al. teach generate electrical energy consumption metering information from the energy signals (see col. 1, lines 35-36).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Pearman et al.'s method to include generate electrical energy consumption metering information from the energy signals, as taught by Hildebrand et al., in order that electrical consumption can be measured (see col. 1, lines 25-26).

As to claims 8 and 9, Pearman et al. disclose operable to obtain an uncorrected gas volume value from the received gas flow signals; obtain an average temperature value from the received temperature signals; and generate corrected gas flow information at least in part by multiplying the uncorrected gas volume value by a second value that is equal to the ratio of the reference temperature to the average temperature value (see col. 10, line 67 to col. 11, line 27).

As to claims 10 and 19, Pearman et al. also disclose operably connected to a source of pressure signals to receive pressure signals therefrom, the processing circuit further operable to generate corrected gas flow information based on the received gas flow signals, the received temperature signals and the received pressure signals (see col. 9, lines 42-45).

As to claims 14 and 15, Pearman et al. also disclose at least one current transformer being affixed to the housing (see col. 7, lines 3-25).

As to claim 20, Pearman et al. also disclose communicating the gas consumption information external to the meter housing (see Abstract, lines 8-11; col. 7, lines 13-25; and col. 8, line 67 to col. 9, line 8).

4. Claims 1-3, 8-12, 14-17, 19, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over U. S. Patent No. 4,918,995 to Pearman et al. in view of Applicant's Admitted Prior Art (referred thereafter as AAPA).

With respect to claims 1-3 11, 12, 16, and 17, Pearman et al. disclose a metering arrangement, comprising: a meter housing configured to be securedly supported proximal to a facility receiving utility commodities (see col. 1, lines 46-52); a source of energy signals representative of electrical energy received by the facility (see Figs. 6 and 7; col. 6, lines 40-52; and col. 7, lines 26-40); a source of gas flow signals representative of gas flow through a gas conduit to the facility (see col. 3, lines 15-40); a source of temperature signals representative of a temperature corresponding to the gas conduit (see Fig. 4 and col. 4, line 67 to col. 5, line 32); a processing circuit (electronic circuits 16 shown on Fig. 6) disposed within the meter housing, the processing circuit operably connected to the source of energy signals to receive energy signals therefrom, the processing circuit operably connected to the source of gas flow signals to received gas flow signals therefrom, the processing circuit operably connected to the source of temperature signals to receive temperature signals therefrom, the processing circuit operable to generate gas consumption information based on the received gas flow signals and the received

temperature signals (see col. 4, line 67 to col. 5, line 32; col. 10, line 7 to col. 11, line 27; and col. 11, line 45 to col. 13, line 10).

Pearman et al. do not disclose generate electrical energy consumption metering information from the energy signals.

AAPA teach generate electrical energy consumption metering information from the energy signals (see page 1, lines 13-14).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Pearman et al.'s method to include generate electrical energy consumption metering information from the energy signals, as taught by AAPA, in order that energy consumption can be measured (see page, lines 13-14).

As to claims 8 and 9, Pearman et al. disclose operable to obtain an uncorrected gas volume value from the received gas flow signals; obtain an average temperature value from the received temperature signals; and generate corrected gas flow information at least in part by multiplying the uncorrected gas volume value by a second value that is equal to the ratio of the reference temperature to the average temperature value (see col. 10, line 67 to col. 11, line 27).

As to claims 10 and 19, Pearman et al. also disclose operably connected to a source of pressure signals to receive pressure signals therefrom, the processing circuit further operable to generate corrected gas flow information based on the received gas flow signals, the received temperature signals and the received pressure signals (see col. 9, lines 42-45).

As to claims 14 and 15, Pearman et al. also disclose at least one current transformer being affixed to the housing (see col. 7, lines 3-25).

As to claim 20, Pearman et al. also disclose communicating the gas consumption information external to the meter housing (see Abstract, lines 8-11; col. 7, lines 13-25; and col. 8, line 67 to col. 9, line 8).

5. Claims 4-7 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pearman et al. in view of Hildebrand et al. as applied to claims 1 and 11 above, and further in view of U. S. Patent No. 5,343,758 to Ingrain et al.

As noted above, Pearman et al. in combination with Hildebrand et al. teach all the features of the claimed invention, but do not disclose a source of pulsed gas flow signals, each pulsed gas flow signal having a frequency that corresponds to a detected gas flow quantity.

Ingrain et al. teach a source of pulsed gas flow signals, each pulsed gas flow signal having a frequency that corresponds to a detected gas flow quantity (see Fig. 3; col. 2, line 62 to col. 3, line 2; col. 5, lines 53-68; and col. 7, lines 47-64).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Pearman et al. in combination with Hildebrand et al.'s method to include a source of pulsed gas flow signals, each pulsed gas flow signal having a frequency that corresponds to a detected gas flow quantity, as taught by Ingrain et al., in order to determine parameters characteristic of the gas on the basis of said evaluation and on the basis of pressure, temperature, and flow measurements performed on the gas (see Ingrain et al. col. 2, lines 63-67).

6. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pearman et al. in view of Hildebrand et al. as applied to claim 17 above, and further in view of U. S. Patent No. 4,829,449 to Polesnak.

As noted above, Pearman et al. in combination with Hildebrand et al. teach all the features of the claimed invention, but do not disclose employing a first routine in the processing circuit to accumulate gas consumption pulses; employing a second routine in the processing circuit to accumulate temperature pulses; employing a third routine in the processing circuit to generate gas consumption information based on the accumulated gas consumption pulses and the accumulated temperature pulses.

Polesnak teaches employing a first routine in the processing circuit to accumulate gas consumption pulses; employing a second routine in the processing circuit to accumulate temperature pulses; employing a third routine in the processing circuit to generate gas consumption information based on the accumulated gas consumption pulses and the accumulated temperature pulses (see col. 10, line 63 to col. 11, line 27 and col. 16, lines 20-36).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Pearman et al. in combination with Hildebrand et al.'s method to include employing a first routine in the processing circuit to accumulate gas consumption pulses; employing a second routine in the processing circuit to accumulate temperature pulses; employing a third routine in the processing circuit to generate gas consumption information based on the accumulated gas consumption pulses and the accumulated temperature pulses, as taught by Polesnak, in order to provide corrected indications of gas flow at base conditions of temperature and pressure.

7. Claims 4-7 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pearman et al. in view of AAPA as applied to claims 1 and 11 above, and further in view of U. S. Patent No. 5,343,758 to Ingrain et al.

As noted above, Pearman et al. in combination with AAPA teach all the features of the claimed invention, but do not disclose a source of pulsed gas flow signals, each pulsed gas flow signal having a frequency that corresponds to a detected gas flow quantity.

Ingrain et al. teach a source of pulsed gas flow signals, each pulsed gas flow signal having a frequency that corresponds to a detected gas flow quantity (see Fig. 3; col. 2, line 62 to col. 3, line 2; col. 5, lines 53-68; and col. 7, lines 47-64).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Pearman et al. in combination with AAPA's method to include a source of pulsed gas flow signals, each pulsed gas flow signal having a frequency that corresponds to a detected gas flow quantity, as taught by Ingrain et al., in order to determine parameters characteristic of the gas on the basis of said evaluation and on the basis of pressure, temperature, and flow measurements performed on the gas (see Ingrain et al. col. 2, lines 63-67).

8. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pearman et al. in view of AAPA as applied to claim 17 above, and further in view of U. S. Patent No. 4,829,449 to Polesnak.

As noted above, Pearman et al. in combination with AAPA teach all the features of the claimed invention, but do not disclose employing a first routine in the processing circuit to accumulate gas consumption pulses; employing a second routine in the processing circuit to

accumulate temperature pulses; employing a third routine in the processing circuit to generate gas consumption information based on the accumulated gas consumption pulses and the accumulated temperature pulses.

Polesnak teaches employing a first routine in the processing circuit to accumulate gas consumption pulses; employing a second routine in the processing circuit to accumulate temperature pulses; employing a third routine in the processing circuit to generate gas consumption information based on the accumulated gas consumption pulses and the accumulated temperature pulses (see col. 10, line 63 to col. 11, line 27 and col. 16, lines 20-36).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Pearman et al. in combination with AAPA's method to include employing a first routine in the processing circuit to accumulate gas consumption pulses; employing a second routine in the processing circuit to accumulate temperature pulses; employing a third routine in the processing circuit to generate gas consumption information based on the accumulated gas consumption pulses and the accumulated temperature pulses, as taught by Polesnak, in order to provide corrected indications of gas flow at base conditions of temperature and pressure.

Response to Arguments

9. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

Applicant argues that Pearman et al. do not disclose a source of energy signals representative of the electrical energy received by the facility. The Examiner disagrees with

Applicant. As set forth above in the art rejection, Pearman et al. do disclose a source of energy signals representative of electrical energy received by the facility (see Figs. 6 and 7; col. 6, lines 40-52; and col. 7, lines 26-40; the sensors 51 and 52 being energized by **current supplied by respective constant current sources 71 and 72**).

Contact Information

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carol S. W. Tsai whose telephone number is (571) 272-2224. The examiner can normally be reached on Monday-Friday from 8:30 AM to 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc S. Hoff can be reached on (571) 272-2216. The fax number for TC 2800 is (703) 872-9306. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the TC 2800 receptionist whose telephone number is (571) 272-1585 or (571) 272-2800.

In order to reduce pendency and avoid potential delays, Group 2800 is encouraging FAXing of responses to Office actions directly into the Group at (703) 872-9306. This practice may be used for filing papers not requiring a fee. It may also be used for filing papers which require a fee by applicants who authorize charges to a PTO deposit account. Please identify the

examiner and art unit at the top of your cover sheet. Papers submitted via FAX into Group 2800 will be promptly forwarded to the examiner.

Carol S. W. Tsai
Primary Examiner
Art Unit 2857

04/22/05